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Notice of Allowability	Application No.	Applicant(s)	
	10/743,255	GERSCHEFSKE ET AL.	
	Examiner	Art Unit	
	Victor K. Hwang	3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment After Final filed March 27, 2006.
2. ☒ The allowed claim(s) is/are 36 and 37.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20060410</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas P. Hilliard on April 10, 2006.

2. The application has been amended as follows:

In the Specification:

- A) Amend paragraphs [0039]-[0042], beginning on page 7, line 3, as follows:

[0039] The tower 104 includes a set of flexible exercising pull lines 113 ~~442~~, the pull lines 113 ~~442~~ directed by swiveling directional pulley assemblies 114 to extend downwardly and forwardly from the tower 104 when in use. The pull lines 113 ~~442~~ terminate in user interconnect, or grip, assemblies 128. The grip assemblies 128 in this embodiment include a set of nested nylon loops 129 connected to the pull lines 113 ~~442~~ by means of metal rings 127. The grip assemblies 128 are suitable for either a user's hands or feet.

[0040] The pull lines 113 ~~442~~ are coupled to a retractable spring system, generally indicated at 116. The spring system 116 is comprised of two identical spring sub-assemblies 118. Each sub-assembly 118 is comprised of three springs 120 connected to a connecting plate 122. In each sub-assembly 118, pull lines 113 ~~442~~ run between a first pulley set 124 connected to the connecting plate 122 and a second pulley set 126 proximate to the top of the tower 104 before

running into the directional pulley assemblies 114. The structure and function of the spring system 116 will be further described below.

[0041] In this embodiment, a lower set of directional pulleys 114 and a lower set of grip assemblies 128 are provided on a lower portion of the tower 104. The first and second pulley sets 124, 126 of this embodiment are double pulley sets, and the pull lines 113 ~~112~~ and pulley sets 124, 126 are constructed and arranged such that each spring sub-assembly 118 provides resistance for an upper and a lower set of grip assemblies 128 (e.g., the left-side spring sub-assembly provides resistance for the left-side upper and left-side lower grip assemblies 128).

[0042] The apparatus 100 also includes a bench assembly, generally indicated at 130, configured and positioned to support a user in a prone, supine or sitting position so as to enable the user to use the grips 128 to pull the pull lines 113 ~~112~~. The bench assembly 130 includes a bench 136 and bench pad 138 connected to a bench frame 178, 166, 168, 172. The bench 136 is moveable between a raised operative user supporting position and a lowered operative position in which the bench pad 138 and bench 136 are disposed adjacent to the bench frame 178, 166, 168, 172. In Figure 1, a removable chest and back support 132 for supporting a user in sitting positions is also shown. The removable chest and back support 132 is connected to the bench frame by means of two receptacles 134, one receptacle extending from the bench frame 140 on either side of the bench 136.

B) Amend paragraphs [0046]-[0048], beginning on page 9, line 1, as follows:

[0046] Figure 3 is a rear elevational view of the assembled exercise apparatus 100 with the bench assembly 130 in the raised operative user supporting position. The spring system 116

and each of its two sub-assemblies 118 are shown in this figure. In this embodiment, each spring 120 is a metallic tension spring with a full loop at each end. However, it is contemplated that the function of the springs 120 may be performed by an elastomeric strap, an elastic cord or any other elastic, extensible, resilient member. The springs 120 are attached with S-hooks 154 at their lower ends to a flange 152 welded to a lower portion of the tower 104 and by S-hooks 156 ~~154~~ at their upper ends to the connecting plates 122. The connecting plates 122 are pivotally connected to the first pulley sets 124 by pivoting bolted connections ~~156~~.

[0047] In the exercise apparatus 100, several pegs 160 are fixedly mounted to a tower crossmember 158, which is fixed to the tower 104 at approximately the level of the tops of the springs 120. The resistive force provided by each of the spring sub-assemblies 118 can be adjusted by detaching one or more of the springs 120 from the S-hooks 156 ~~154~~ that connect them to the connecting plate 122. Springs 120 that are detached from the connecting plate 122 can be temporarily stored by placing the end of the spring on one of the pegs 160. Preferably, the user removes only the center spring 120 from the each connecting plate 122 so that the connecting plate 122 remains balanced, but because the connecting plate 122 is pivotally mounted for rotation about an axis defined by the bolted connection ~~156~~, a user may remove either one or two springs from each of the spring sub-assemblies 118 and continue to use the apparatus 100 with a commensurately reduced amount of resistance. Alternately, a user may choose to reduce or increase the resistance provided by only one of the spring sub-assemblies 118, for instance, to compensate for a strength imbalance in the limbs or an injury to a particular limb.

[0048] The exercise apparatus 100 uses a total of two pull lines 113 ~~442~~; a single pull line runs from each spring sub-assembly 118 to the upper and lower grip assemblies 128 served by that assembly. One end of the pull line 113 ~~442~~ is attached to the grip structure 128 and the upper directional pulley 114. From the upper directional pulley 114, the pull line extends through the first pulley set 124, and from the first pulley set 124 to the second pulley set 126. The pull line 113 ~~442~~ then extends from the second pulley set 126 to the lower directional pulley 114, terminating at the grip assemblies 128. The arrangement of the first and second pulley sets 124, 126 and the pull lines 113 ~~442~~ allows the user to use both the upper and lower grip assemblies 128 that are attached to the same spring sub-assembly simultaneously. The arrangement of the pulleys 124, 126 and pull lines 113 ~~442~~ also provides the user with a significant mechanical advantage against the resistive bias of the spring sub-assemblies; therefore, relatively stiff springs (i.e., springs having a large spring constant) may be used to provide adequate resistance for some exercises.

C) Amend paragraph [0056], beginning on page 11, line 23, as follows:

[0056] If the exercise apparatus 100 is to be placed in its connected storage position, the user first places the bench assembly 130 in the lower operative position of Figure 5 [[4]] and then unscrews the threaded rod 146 that connects the crossbrace 144 ~~442~~ of the bench assembly 130 with the corresponding crossmember 142 ~~444~~ of the tower. With the pin 174 inserted into the fourth leg 168 to fix the bench assembly in the collapsed position, the user lifts the forward end of the bench assembly 130, thus rotating it about the pivot-crossbrace 148 in a

counterclockwise direction until it extends vertically, abutting the tower 104. This position is illustrated in the side elevational view of Figure 8.

D) Amend paragraph [0059], beginning on page 12, line 12, as follows:

[0059] Figure 10 is a front elevational view of the apparatus 100 in the connected storage position. The underside of the bench 136 is visible, along with the rectangular ~~hanging~~ members 178, and the rubber feet 180. As is shown in Figure 10, the knob and threaded rod 146 may be retained in the corresponding crossmember 144.

E) Amend paragraphs [0062] and [0063], beginning on page 13, line 6, as follows:

[0062] In Figure 12, the user P is depicted in a partially supine position, pulling the lower grip assemblies 128 with his or her feet. Following the position shown, the user P may either directly return to a fully supine position, allowing the pull line 113 ~~442~~ and grip assembly 128 to retract, or he or she may pull the feet up into a vertical position before returning to the fully supine position.

[0063] Figure 13 shows the user P in a sitting position, facing away from the tower 104. In this exercise, the user P pulls the lower grip assemblies 128 with the hands, making thrusting motions with the arms. The chest/back support 132 (not shown in Figure 13) may be installed for this exercise. Note that the movement of the user's arms is not coincidental in this exercise. Consequently, the movement of the grips 128 and pull lines 113 ~~442~~ is not coincidental, and therefore, the movement of the two spring sub-assemblies 118 is not coincidental. (In Figure 13, the springs 120 of the two sub-assemblies have different extended lengths, and therefore, the first

pulley sets 124 of the sub-assemblies 118 are shown at different heights.) The independent movement of each spring sub-assembly 118 allows the user P to perform the illustrated exercise at a rate and resistance level appropriate for each arm.

F) Amend paragraph [0072], beginning on page 15, line 8, as follows:

[0072] Although the tower structure 304 and bench assembly 330 are constructed and arranged to be used while disconnected from one another, the exercise apparatus 300 may be placed in raised and lowered operative positions and a connected storage position similar to that of the apparatus 100. In order to hold the bench assembly 330 in the connected storage position, the base structure 302 of the apparatus 300 includes two tubular cradle members 350, one tubular cradle member 350 attached to each of the tubular members 306 and projecting inwardly therefrom. The connected storage position of the exercise apparatus 300 will be discussed in more detail below. With the exception of the weight plates 305 and tubular cradle members 350, the tower structure 304 of the exercise apparatus 300 is identical to the tower structure 104 of the exercise apparatus 100, therefore, the discussion presented above with respect to the tower structure 104 will suffice to describe the tower structure 304.

G) Amend paragraphs [0074] and [0075], beginning on page 15, line 25, as follows:

[0074] In bench assembly 330, a single, central floor contact member 362 is provided, extending in a direction parallel to that of the bench 336 proximate to floor level. Two crosspieces 364, 365 are fixedly connected to and extend in a direction perpendicular to the central floor contact member 362. One crosspiece 364 is fixedly connected to one of the

terminal ends of the central floor contact member 362; the other crosspiece 365 is fixedly connected to the central floor contact member 362 just adjacent to the other terminal end of the central floor contact member 362. The ends of the crosspieces 364, 365 and the central floor contact member 362 are each provided with rubberized endcaps 312 to prevent slipping. Two legs 366 are pivotally mounted on the crosspiece 365 for rotation between the central floor contact member 362 and the bench 336, one leg 366 on each side of the central floor contact member 362. A third leg 366 is pivotally mounted between the central floor contact member 362 and the bench frame 336 at the opposite end of the central floor contact member 362. The extendable and retractable fourth leg 368 is pivotally mounted for rotation between the bench 336 and the central floor contact member 362. As in the bench assembly 130, the bench assembly 330 cannot be moved between the raised and lowered operative positions unless the length of the extendable and retractable fourth leg ~~368~~ 362 is changed. The fourth leg ~~368~~ 362 is held in position by a pin 374 inserted through holes ~~476~~ through the members of the leg.

[0075] Figure 23 is an exploded perspective view of the bench assembly 330 in its raised operative position, illustrating the attachment of the rotor assemblies 200 and the removable chest and back support 332. As shown, the connecting arm 204 of the rotor assemblies 200 inserts into the tubular, hollow rectangular member 378 at the forward end of the bench assembly 330. As in bench assembly 130, the tubular, hollow rectangular member 378 is fixedly attached to the underside of the bench 336, and may be provided with endcaps for use if the rotors 200 are not installed. In the bench assembly 330, rubber feet 380 are not installed on the tubular, hollow rectangular member; rather, they are installed on a separate tubular post 381 which projects downwardly from the underside of the bench 336.

In the Claims:

Amend claims 1-39 as follows:

1-35. (Canceled).

36. (Currently Amended) An exerciser, comprising:

a frame assembly including a base structure and an upright structure fixed to said base structure and extending upwardly therefrom, said base structure having downwardly facing surfaces for engaging a horizontal surface in supported relation thereon and being structured and arranged such that said exerciser is freestanding on the horizontal surface; an exercising mechanism carried by said frame assembly;

upper user interconnecting structures coupled to said exercising mechanism and being selectively extensible by an exercise of a user from an operative position at an upper end portion of said upright structure;

lower user interconnecting structures coupled to said exercising mechanism and being selectively extensible by an exercise of a user from an operative position at a lower portion of said upright structure;

said exercising mechanism being structured and arranged to resiliently resist the movement of the upper and lower user interconnecting structures away from said exercising mechanism; and

a bench assembly being removably and pivotally coupled to said frame assembly such that said bench assembly may be removed from said frame assembly and be ~~securely~~ pivotally attached to said frame assembly, said bench assembly being selectively pivoted to said frame assembly at a pivot end of said bench assembly so that said bench

assembly may be moved between an operable position wherein the user may utilize said bench assembly for support, and a stored, upright position wherein a free end of said bench assembly that is opposite to said pivot end is adjacent to said upright structure,

wherein said bench assembly has a user supporting surface and a bench assembly support coupled to and extending from said user supporting surface, said bench assembly support being pivotably movable from a retracted position adjacent said user supporting surface and an extended position for supporting said bench assembly above the horizontal surface and also removing said bench assembly from said frame assembly.

37. (Currently Amended) An exerciser according to claim 36 ~~[[34]]~~, wherein said exercising mechanism includes a plurality of coil springs.

38-39. (Canceled).

3. The following is an examiner's statement of reasons for allowance: the prior art does not disclose or make obvious an exerciser comprising all of the claimed limitations wherein the bench assembly is removably and pivotally coupled to the frame assembly as described, and has a bench assembly support that is pivotably moveable from a retracted position adjacent a user support surface (Fig. 25) to an extended position supporting the bench assembly above the horizontal surface and removing the bench assembly from the frame assembly (Fig. 21).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor K. Hwang whose telephone number is (571) 272-4976. The examiner can normally be reached Monday through Friday from 7:30 AM to 4:00 PM Eastern time.

The facsimile number for submitting papers directly to the examiner for informal correspondence is (571) 273-4976. The facsimile number for submitting all formal correspondence is (571) 273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Huson can be reached on (571) 272-4887.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Victor K. Hwang
April 10, 2006



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